

INFORMAL SEQUENCE LISTING

SEQ ID NO:1
SIZE: 10
PRT-- HIV-Tat

Tyr-Gly-Arg-Lys-Lys-Arg-Arg-Gln-Arg-Arg-Arg

SEQ ID NO: 2
SIZE: 11
PRT HIV-Tat Variant

Tyr-Ala-Arg-Lys-Ala-Arg-Arg-Gln-Ala-Arg-Arg

SEQ ID NO: 3
SIZE: 11
PRT-HIV-Tat Variant

Tyr-Ala-Arg-Ala-Ala-Ala-Arg-Gln-Ala-Arg-Ala

SEQ ID NO: 4
SIZE: 11
PRT-HIV-Tat Variant

Tyr-Ala-Arg-Ala-Ala-Arg-Ala-Ala-Arg-Arg-Arg

SEQ ID NO: 5
SIZE: 11
PRT: HIV-Tat Variant

Tyr-Ala-Arg-Ala-Ala-Arg-Ala-Ala-Arg-Arg-Ala

SEQ ID NO: 6
SIZE: 11
HIV-Tat Variant

Tyr-Ala-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg

SEQ ID NO: 7
SIZE: 11
PRT-HIV-Tat Variant

Tyr-Ala-Ala-Ala-Ala-Arg-Arg-Arg-Arg-Arg-Arg

SEQ ID NO: 8
SIZE: 11
PRT-HIV-Tat Variant

Ala-Gly-Arg-Lys-Lys-Arg-Arg-Gln-Arg-Arg-Arg

SEQ ID NO: 9
SIZE: 34
PRT-HSV VP22

Asp-Ala-Ala-Thr-Ala-Thr-Arg-Gly-Arg-Ser-Ala-Ala-Ser-Arg-Pro-Thr-Glu-Arg-
Pro-Arg-Ala-Pro-Ala-Arg-Ser-Ala-Ser-Arg-Pro-Arg-Arg-Pro-Val-Glu

SEQ ID NO: 10
 SIZE: 16
 PRT-Antennapedia third Helix, 43-58, Penetratin-1

 Arg-Gln-Ile-Lys-Ile-Trp-Phe-Gln-Asn-Arg-Arg-Met-Lys-Trp-Lys-Lys

 SEQ ID NO: 11
 SIZE: 16
 PRT-Antennapedia third Helix, 53-43

 Lys-Lys-Trp-Lys-Met-Arg-Arg-Asn-Gln-Phe-Trp-Ile-Lys-Ile-Gln-Arg

 SEQ ID NO: 12
 SIZE: 16
 PRT-Antennapedia third Helix, 43-58, D-amino acids

 Arg-Gln-Ile-Lys-Ile-Trp-Phe-Gln-Asn-Arg-Arg-Met-Lys-Trp-Lys-Lys

 SEQ ID NO: 13
 SIZE: 16
 PRT-Antennapedia third Helix, 43-58, Pro50,

 Arg-Gln-Ile-Lys-Ile-Trp-Phe-Pro-Asn-Arg-Arg-Met-Lys-Trp-Lys-Lys

 SEQ ID NO: 14
 SIZE: 16
 PRT-Antennapedia third Helix, 43-58, 3-Pro

 Arg-Gln-Pro-Lys-Ile-Trp-Phe-Pro-Asn-Arg-Arg-Lys-Pro-Trp-Lys-Lys

 SEQ ID NO: 15
 SIZE:
 PRT-Antennapedia third Helix, 43-58, R52M/M54R,

 Arg-Gln-Ile-Lys-Ile-Trp-Phe-Gln-Asn-Met-Arg-Arg-Lys-Trp-Lys-Lys)

 SEQ ID NO: 16
 SIZE: 16
 PRT-Antennapedia third Helix, 43-58, 7-Arg

 Arg-Gln-Ile-Arg-Ile-Trp-Phe-Gln-Asn-Arg-Arg-Met-Arg -Trp-Arg -Arg

 SEQ ID NO: 17
 SIZE: 16
 PRT-Antennapedia third Helix, 43-58, W/R

 Arg-Arg-Trp-Arg-Arg-Trp-Trp-Arg-Arg-Trp-Trp-Arg-Arg-Trp-Arg-Arg

 SEQ ID NO: 18
 SIZE: 16
 PRT-Kaposi's FGF signal sequence

 Ala-Ala-Val-Ala-Leu-Leu-Pro-Ala-Val-Leu-Leu-Ala-Leu-Leu-Ala-Pro

 SEQ ID NO: 19
 SIZE: 20
 PRT: amino terminal secretory signal of human IL-2

 Met-Tyr-Arg-Met-Gln-Leu-Leu-Ser-Cys-Ile-Ala-Leu-Ser-Leu-Ala-Leu-Val-Thr-
 Asn-Ser

SEQ ID NO: 20
SIZE: 20
PRT-IL-2-4 signal sequence

Met-Tyr-Arg-Met-Ala-Leu-Leu-Ser-Cys-Ile-Ala-Leu-Ser-Leu-Ala-Leu-Val-Thr-Asn-Ser

SEQ ID NO: 21
SIZE: 202
PRT-HSV VP22 sequence

Met-Thr-Ser-Arg-Arg-Ser-Val-Lys-Ser-Gly-Lys-Arg-Glu-Val-Lys-Arg-Asp-Glu-Tyr-Glu-Asp-Leu-Tyr-Tyr-Thr-Lys-Ser-Ser-Gly-Ile-Ala-Ser-Lys-Asp-Ser-Lys-Lys-Asp-Thr-Ser-Arg-Arg-Gly-Ala-Leu-Gln-Thr-Arg-Ser-Arg-Gln-Arg-Gly-Glu-Val-Arg-Phe-Val-Gln-Tyr-Asp-Glu-Ser-Asp-Tyr-Ala-Leu-Tyr-Gly-Gly-Ser-Ser-Ser-Glu-Asp-Asp-Glu-His-Pro-Glu-Val-Lys-Arg-Thr-Arg-Arg-Lys-Val-Ser-Gly-Ala-Val-Leu-Ser-Gly-Lys-Gly-Lys-Ala-Arg-Ala-Lys-Lys-Lys-Lys-Ala-Gly-Ser-Gly-Gly-Ala-Gly-Arg-Thr-Lys-Thr-Thr-Ala-Lys-Arg-Ala-Lys-Arg-Thr-Gln-Arg-Val-Ala-Thr-Lys-Ala-Lys-Ala-Ala-Lys-Ala-Ala-Glu-Thr-Thr-Arg-Gly-Arg-Lys-Ser-Ala-Gln-Lys-Glu-Ser-Ala-Ala-Leu-Lys-Asp-Ala-Lys-Ala-Ser-Thr-Ala-Lys-Thr-Arg-Ser-Lys-Thr-Lys-Ala-Gln-Gly-Leu-Ala-Arg-Lys-Leu-His-Phe-Ser-Thr-Ala-Lys-Lys-Asn-Lys-Asp-Ala-Lys-Trp-Thr-Lys-Arg-Val-Ala-Gly-Phe-Asn-Lys-Arg-Val-Phe-Cys-Ala-Ala-Val-Gly-Arg-Leu-Ala-Ala-Met-His-Ala-Arg-Met-Ala-Ala-Val-Gln-Leu-Trp-Asp-Met-Ser-Arg-Lys-Arg-Thr-Asp-Glu-Asp-Leu-Asn-Glu-Leu-Leu-Gly-Ile-Thr-Thr-Ile-Arg-Val-Thr-Val-Cys-Glu-Gly-Lys-Asn-Leu-Leu-Gln-Arg-Ala-Asn-Glu-Leu-Val-Asn-Lys-Asp-Val-Val-Gln-Asp-Val-Asp-Ala-Ala-Thr-Ala-Thr-Arg-Gly-Arg-Ser-Ala-Ala-Ser-Arg-Lys-Thr-Glu-Arg-Lys-Arg-Ala-Lys-Ala-Arg-Ser-Ala-Ser-Arg-Lys-Arg-Arg-Lys-Val-Glu-Ser

SEQ ID NO: 22
SIZE: 23
DNA-T7 RNAP promoter:

TAATACGACTCACTATAGGGAGA

SEQ ID NO: 23
SIZE 23
DNA -SP6 RNAP promoter:

ATTTAGGTGACACTATAGAAGAA

SEQ ID NO: 24
SIZE 23
DNA-T3 RNAP promoter:

AATTAACCCTCACTAAAGGGAGA

SEQ ID NO: 25
SIZE 23
DNA-K11 RNAP promoter:

AATTAGGGCACACTATAGGGAGA

SEQ ID NO:26
SIZE 24
PRT IL-4 signal sequence

Met-Gly-Leu-Thr-Ser-Gln-Leu-Leu-Pro-Pro-Leu-Phe-Phe-Leu-Leu-Ala-Cys-Ala-Gly-Asn-Phe-Val-His-Gly

SEQ ID NO:27
SIZE 302
PRT HSV VP22

Met-Thr-Ser-Arg-Arg-Ser-Val-Lys-Ser-Gly-Pro-Arg-Glu-Val-Pro-Arg-Asp-Glu-Tyr-Glu-Asp-Leu-Tyr-Tyr-Thr-Pro-Ser-Ser-Gly-Met-Ala-Ser-Pro-Asp-Ser-Pro-Pro-Asp-Thr-Ser-Arg-Arg-Gly-Ala-Leu-Gln-Thr-Arg-Ser-Arg-Gln-Arg-Gly-Glu-Val-Arg-Phe-Val-Gln-Tyr-Asp-Glu-Ser-Asp-Tyr-Ala-Leu-Tyr-Gly-Gly-Ser-Ser-Ser-Glu-Asp-Asp-Glu-His-Pro-Glu-Val-Pro-Arg-Thr-Arg-Arg-Pro-Val-Ser-Gly-Ala-Val-Leu-Ser-Gly-Pro-Gly-Pro-Ala-Arg-Ala-Pro-Pro-Pro-Pro-Ala-Gly-Ser-Gly-Gly-Ala-Gly-Arg-Thr-Pro-Thr-Thr-Ala-Pro-Arg-Ala-Pro-Arg-Thr-Gln-Arg-Val-Ala-Thr-Lys-Ala-Pro-Ala-Ala-Pro-Ala-Ala-Glu-Thr-Thr-Arg-Gly-Arg-Lys-Ser-Ala-Gln-Pro-Glu-Ser-Ala-Ala-Leu-Pro-Asp-Ala-Pro-Ala-Ser-Thr-Ala-Pro-Thr-Arg-Ser-Lys-Thr-Pro-Ala-Gln-Gly-Leu-Ala-Arg-Lys-Leu-His-Phe-Ser-Thr-Ala-Pro-Pro-Asn-Pro-Asp-Ala-Pro-Trp-Thr-Pro-Arg-Val-Ala-Gly-Phe-Asn-Lys-Arg-Val-Phe-Cys-Ala-Ala-Val-Gly-Arg-Leu-Ala-Ala-Met-His-Ala-Arg-Met-Ala-Ala-Val-Gln-Leu-Trp-Asp-Met-Ser-Arg-Pro-Arg-Thr-Asp-Glu-Asp-Leu-Asn-Glu-Leu-Leu-Gly-Ile-Thr-Thr-Ile-Arg-Val-Thr-Val-Cys-Glu-Gly-Lys-Asn-Leu-Leu-Gln-Arg-Ala-Asn-Glu-Leu-Val-Asn-Pro-Asp-Val-Val-Gln-Asp-Val-Asp-Ala-Ala-Thr-Ala-Thr-Arg-Gly-Arg-Ser-Ala-Ala-Ser-Arg-Pro-Thr-Glu-Arg-Pro-Arg-Ala-Pro-Ala-Arg-Ser-Ala-Ser-Arg-Pro-Arg-Arg-Pro-Val-Glu-Gly

SEQ ID NO:28
SIZE 6
PRT: Artificial

Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:29
SIZE 7
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:30
SIZE 8
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:31
SIZE 9
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:32
SIZE 10
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:33
SIZE 11
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:34
SIZE 12
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:35
SIZE 13
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:36
SIZE 14
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:37
SIZE 15
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:38
SIZE 16
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:39
SIZE 17
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:40
SIZE 18
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:41
SIZE 19
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:42
SIZE 20
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:43
SIZE 21
PRT: Artificial

Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Arg-Gly-Cys

SEQ ID NO:44
 SIZE 22
 PRT: Artificial

Arg-Gly-Cys

SEQ ID NO:45
 SIZE 22
 PRT: Kaposi's FGF signal sequence-full length

Met-Ser-Gly-Asp-Gly-Thr-Ala-Ala-Val-Ala-Leu-Leu-Pro-Ala-Val-Leu-Leu-Ala-Leu-Leu-Ala-Pro

SEQ ID NO:46
 SIZE 10769
 DNA: R011

TGGCCATTGC	ATACGTTGTA	TCCATATCAT	AATATGTACA	TTTATATTGG	CTCATGTCCA
ACATTACCGC	CATGTTGACA	TTGATTATTG	90		
ACTAGTTATT	AATAGTAATC	AATTACGGGG	TCATTAGTTC	ATAGCCCATA	TATGGAGTTC
CGCGTTACAT	AACTTACGGT	AAATGGCCCCG	180		
CCTGGCTGAC	CGCCCAACGA	CCCCCGCCCA	TTGACGTCAA	TAATGACGTA	TGTTCCCATA
GTAACGCCAA	TAGGGACTTT	CCATTGACGT	270		
CAATGGGTGG	AGTATTTACG	GTAAACTGCC	CACTTGGCAG	TACATCAAGT	GTATCATATG
CCAAGTACGC	CCCCTATTGA	CGTCAATGAC	360		
GGTAAATGGC	CCGCCTGGCA	TTATGCCCAG	TACATGACCT	TATGGGACTT	TCCTACTTGG
CAGTACATCT	ACGTATTAGT	CATCGCTATT	450		
ACCATGGTGA	TGCGGTTTTG	GCAGTACATC	AATGGGCGTG	GATAGCGGTT	TGACTCACGG
GGATTTCCAA	GTCTCCACCC	CATTGACGTC	540		
AATGGGAGTT	TGTTTTGGCA	CCAAAATCAA	CGGGACTTTC	CAAAATGTCT	TAACAACTCC
GCCCCATTGA	CGCAAATGGG	CGGTAGGCGT	630		
GTACGGTGGG	AGGTCTATAT	AAGCAGAGCT	CGTTTAGTGA	ACCGTCAGAT	CGCCTGGAGA
CGCCATCCAC	GCTGTTTTGA	CCTCCATAGA	720		
AGACACCGGG	ACCGATCCAG	CCTCCGCGGC	CGGGAACGGT	GCATTGGAAC	GCGGATTCCC
CGTGCCAAGA	GTGACGTAAG	TACCGCCTAT	810		
AGACTCTATA	GGCACACCCC	TTTGGCTCTT	ATGCATGCTA	TACTGTTTTT	GGCTTGGGGC
CTATACACCC	CCGCTTCCTT	ATGCTATAGG	900		
TGATGGTATA	GCTTAGCCTA	TAGGTGTGGG	TTATTGACCA	TTATTGACCA	CTCCAACGGT
GGAGGGCAGT	GTAGTCTGAG	CAGTACTCGT	990		
TGCTGCCGCG	CGCGCCACCA	GACATAATAG	CTGACAGACT	AACAGACTGT	TCCTTTCCAT
GGGTCTTTTC	TGCAGTCACC	GTCGTTCGACG	1080		
GTATCGATAA	GCTTGATCCA	CCGCGGTGGC	GGCCTGGCAC	GACAGGTTTC	CCGACTGGAA
AGCGGGCAGT	GAGCGCAACG	CAATTAATGT	1170		
GAGTTAGCTC	ACTCATTAGG	CACCCCAGGC	TTTACACTTT	ATGCTTCCGG	CTCGTATGTT
GTGTGGAATT	GTGAGCGGAT	AACAATTTCA	1260		

CACAGGAAAC AGCTATGACC ATGATTACGC CAAGCTCCAA CGATTTAGGT GACACTATAG
AAGAGAAGGA ATTAATACGA CTCACTATAG 1350
GGAGAGAGAG AGAATTACCC TCACTAAAGG GAGGAGAAGC TTGCATGCCT GCAGGTCGAC
TCTAGAGGAT CCCCCGGGCT GCAGGAATTC 1440
CGCNNNNCCCT CTCCCTCCCC CCCCCCTAAC GTTACTGGCC GAAGCCGCTT GGAATAAGGC
CGGTGTGCGT TTGTCTATAT GTTATTTTCC 1530
ACCATATTGC CGTCTTTTGG CAATGTGAGG GCGCGGAAAC CTGGCCCTGT CTTCTTGACG
AGCATTCTTA GGGGTCTTTC CCCTCTCGCC 1620
AAAGGAATGC AAGGTCTGTT GAATGTCGTG AAGGAAGCAG TTCCTCTGGA AGCTTCTTGA
AGACAAACAA CGTCTGTAGC GACCCTTTGC 1710
AGGCAGCGGA ACCCCCCACC TGGCGACAGG TGCCTCTGCG GCCAAAAGCC ACGTGTATAA
GATACACCTG CAAAGGCGGC ACAACCCAG 1800
TGCCACGTTG TGAGTTGGAT AGTTGTGGAA AGAGTCAAAT GGCTCTCCTC AAGCGTATTC
AACAAGGGGC TGAAGGATGC CCAGAAGGTA 1890
CCCCATTGTA TGGGATCTGA TCTGGGGCCT CGGTGCACAT GCTTTACATG TGTTTAGTCG
AGGTTAAAAA AACGTCTAGG CCCCCGAAC 1980
CACGGGGACG TGGTTTTCTT TTGAAAAACA CGATGATAAT ATGGCCACAA CCATGGACAC
GATTAACATC GCTAAGAACG ACTTCTCTGA 2070
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TCGCGAACAG TTGGCCCTTG AGCATGAGTC 2160
TTACGAGATG GGTGAAGCAC GCTTCCGCAA GATGTTTGAG CGTCAACTTA AAGCTGGTGA
GGTTGCGGAT AACGCTGCCG CCAAGCCTCT 2250
CATCACTACC CTACTCCCTA AGATGATTGC ACGCATCAAC GACTGGTTTG AGGAAGTGAA
AGCTAAGCGC GGCAAGCGCC CGACAGCCTT 2340
CCAGTTCCTG CAAGAAATCA AGCCGGAAGC CGTAGCGTAC ATCACCATTA AGACCACTCT
GGCTTGCCTA ACCAGTGCTG ACAATACAAC 2430
CGTTCAGGCT GTAGCAAGCG CAATCGGTG GGCCTATTGAG GACGAGGCTC GCTTCGGTCG
TATCCGTGAC CTTGAAGCTA AGCACTTCAA 2520
GAAAAACGTT GAGGAACAAC TCAACAAGCG CGTAGGGCAC GTCTACAAGA AAGCATTTAT
GCAAGTTGTC GAGGCTGACA TGCTCTCTAA 2610
GGGTCTACTC GGTGGCGAGG CGTGGTCTTC GTGGCATAAG GAAGACTCTA TTCATGTAGG
AGTACGCTGC ATCGAGATGC TCATTGAGTC 2700
AACCNGAATG GTTAGCTTAC ACCGCCAAAA TGCTGGCGTA GTAGGTCAAG ACTCTGAGAC
TATCGAACTC GCACCTGAAT ACGCTGAGGC 2790
TATCGCAACC CGTGCAGGTG CGCTGGCTGG CATCTCTCCG ATGTTCCAAC CTTGCGTAGT
TCCTCCTAAG CCGTGGACTG GCATTACTGG 2880
TGGTGGCTAT TGGGCTAACG GTCGTCGTCC TCTGGCGCTG GTGCGTACTC ACAGTAAGAA
AGCACTGATG CGCTACGAAG ACGTTTACAT 2970
GCCTGAGGTG TACAAAGCGA TTAACATTGC GCAAAACACC GCATGGAAAA TCAACAAGAA
AGTCCTAGCG GTCGCCAACG TAATCACCAA 3060

GTGGAAGCAT	TGTCCGGTCG	AGGACATCCC	TGCGATTGAG	CGTGAAGAAC	TCCCCGATGAA
ACCGGAAGAC	ATCGACATGA	ATCCTGAGGC	3150		
TCTCACCGCG	TGGAAACGTG	CTGCCGCTGC	TGTGTACCGC	AAGGACAAGG	CTCGCAAGTC
TCGCCGTATC	AGCCTTGAGT	TCATGCTTGA	3240		
GCAAGCCAAT	AAGTTTGCTA	ACCATAAGGC	CATCTGGTTC	CCTTACAACA	TGGACTGGCG
CGGTCGTGTT	TACGCTGTGT	CAATGTTCAA	3330		
CCCCGAAGGT	AACGATATGA	CCAAAGGACT	GCTTACGCTG	GCGAAAGGTA	AACCAATCGG
TAAGGAAGGT	TACTACTGGC	TGAAAATCCA	3420		
CGGTGCAAAC	TGTGCGGGTG	TCGATAAGGT	TCCGTTCCCT	GAGCGCATCA	AGTTCATTGA
GGAAAACCAC	GAGAACATCA	TGGCTTGCGC	3510		
TAAGTCTCCA	CTGGAGAACA	CTTGGTGGGC	TGAGCAAGAT	TCTCCGTTCT	GCTTCCTTGC
GTTCTGCTTT	GAGTACGCTG	GGGTACAGCA	3600		
CCACGGCCTG	AGCTATAACT	GCTCCCTTCC	GCTGGCGTTT	GACGGGTCTT	GCTCTGGCAT
CCAGCACTTC	TCCGCGATGC	TCCGAGATGA	3690		
GGTAGGTGGT	CGCGCGGTTA	ACTTGCTTCC	TAGTGAAACC	GTTCAGGACA	TCTACGGGAT
TGTTGCTAAG	AAAGTCAACG	AGATTCTACA	3780		
AGCAGACGCA	ATCAATGGGA	CCGATAACGA	AGTAGTTACC	GTGACCGATG	AGAACACTGG
TGAAATCTCT	GAGAAAGTCA	AGCTGGGCAC	3870		
TAAGGCACTG	GCTGGTCAAT	GGCTGGCTTA	CGGTGTTACT	CGCAGTGTGA	CTAAGCGTTC
AGTCATGACG	CTGGCTTACG	GGTCCAAAGA	3960		
GTTCTGGCTTC	CGTCAACAAG	TGCTGGAAGA	TACCATTGAG	CCAGCTATTG	ATTCCGGCAA
GGGTCTGATG	TTCACTCAGC	CGAATCAGGC	4050		
TGCTGGATAC	ATGGCTAAGC	TGATTTGGGA	ATCTGTGAGC	GTGACGGTGG	TAGCTGCGGT
TGAAGCAATG	AACTGGCTTA	AGTCTGCTGC	4140		
TAAGCTGCTG	GCTGCTGAGG	TCAAAGATAA	GAAGACTGGA	GAGATTCTTC	GCAAGCGTTG
CGCTGTGCAT	TGGGTAATCT	CTGATGGTTT	4230		
CCCTGTGTGG	CAGGAATACA	AGAAGCCTAT	TCAGACGCGC	TTGAACCTGA	TGTTCTCTCGG
TCAGTTCCGC	TTACAGCCTA	CCATTAACAC	4320		
CAACAAAGAT	AGCGAGATTG	ATGCACACAA	ACAGGAGTCT	GGTATCGCTC	CTAACTTTGT
ACACAGCCAA	GACGGTAGCC	ACCTTCGTAA	4410		
GACTGTAGTG	TGGGCACACG	AGAAGTACGG	AATCGAATCT	TTTGCACTGA	TTCACGACTC
CTTCGGTACC	ATTCCGGCTG	ACGCTGCGAA	4500		
CCTGTTCAAA	GCAGTGCGCG	AAACTATGGT	TGACACATAT	GAGTCTTGTTG	ATGTACTGGC
TGATTTCTAC	GACCAGTTTCG	CTGACCAGTT	4590		
GCACGAGTCT	CAATTGGACA	AAATGCCAGC	ACTTCCGGCT	AAAGGTAAC	TGAACCTCCG
TGACATCTTA	GAGTCGGACT	TCGCGTTTCGC	4680		
GTAACGCCAA	ATCAATACGA	CTCCGGATCT	GAACTTGTTT	ATTGCAGCTT	ATAATGGTTA
CAAATAAAGC	AATAGCATCA	CAAATTTTAC	4770		
AAATAAAGCA	TTTTTTTTCAC	TGCATTCTAG	TTGTGGTTTG	TCCAAACTCA	TCAATGTATC
TTATCATGTC	TGGATCTGGT	TACCACTAAA	4860		

CCAGCCTCAA GAACACCCGA ATGGAGTCTC TAAGCTACAT AATACCAACT TACACTTTAC
 AAAATGTTGT CCCCCAAAAT GTAGCCATTC 4950
 GTATCTGCTC CTAATAAAAA GAAAGTTTCT TCACATTCTA AAAAAAAAAA AAAAAAAAAA
 AAAAAAAAAA AACCCCCCCC CCCCCCCCCT 5040
 GCAGGAATTC GATCTGGCAC GACAGGTTTC CCGACTGGAA AGCGGGCAGT GAGCGCAACG
 CAATTAATGT GAGTTAGCTC ACTCATTAGG 5130
 CACCCCAGGC TTTACACTTT ATGCTTCCGG CTCGTATGTT GTGTGGAATT GTGAGCGGAT
 AACAAATTCA CACAGGAAAC AGCTATGACC 5220
 ATGATTACGC CAAGCTCCAA CGATTTAGGT GACACTATAG AAGAGAAGGA ATTAATACGA
 CTCACTATAG GGAGAGAGAG AGAATTACCC 5310
 TCACTAAAGG GAGGAGAAGC TTGCATGCCT GCAGGTCGAT CGAGCATGCA TCTAGGGCGG
 CCAATTCGCC CCTCTCCCTC CCCCCCCCCT 5400
 AACGTTACTG GCCGAAGCCG CTTGGAATAA GGCCGGTGTG TGTTTGTCTA TATGTGATTT
 TCCACCATAT TGCCGTCTTT TGGCAATGTG 5490
 AGGGCCCCGA AACCTGGCCC TGTCTTCTTG ACGAGCATTCT TAGGGGTCT TTCCCCTCTC
 GCCAAAGGAA TGCAAGGTCT GTTGAATGTC 5580
 GTGAAGGAAG CAGTTCCTCT GGAAGCTTCT TGAAGACAAA CAACGTCTGT AGCGACCCTT
 TGCAGGCAGC GGAACCCCCC ACCTGGCGAC 5670
 AGGTGCCTCT GCGGCCAAAA GCCACGTGTA TAAGATACAC CTGCAAAGGC GGCACAACCC
 CAGTGCCACG TTGTGAGTTG GATAGTTGTG 5760
 GAAAGAGTCA AATGGCTCTC CTCAAGCGTA TTCAACAAGG GGCTGAAGGA TGCCCAGAAG
 GTACCCCAT TATGCGGATC TGATCTGGGG 5850
 CCTCGGTGCA CATGCTTTAC ATGTGTTTAG TCGAGGTTAA AAAACGTCTA GGCCCCCGGA
 ACCACGGGGA CGTGGTTTTT CTTTGAAAAA 5940
 CACGATGATA ATATGGCCAC AACCATGGAA GACGCCAAAA ACATAAAGAA AGGCCCCGGC
 CCATTCTATC CGCTGGAAGA TGGAACCGCT 6030
 GGAGAGCAAC TGCATAAGGC TATGAAGAGA TACGCCCTGG TTCCTGGAAC AATTGCTTTT
 ACAGATGCAC ATATCGAGGT GGACATCACT 6120
 TACGCTGAGT ACTTCGAAAT GTCCGTTCCG TTGGCAGAAG CTATGAAACG ATATGGGCTG
 AATACAAATC ACAGAATCGT CGTATGCAGT 6210
 GAAAACCTCT TTCAATTCTT TATGCCGGTG TTGGGCGCGT TATTTATCGG AGTTGCAGTT
 GCGCCCCGGA ACGACATTTA TAATGAACGT 6300
 GAATTGCTCA ACAGTATGGG CATTTCCGAG CCTACCGTGG TGTTTCGTTT CAAAAAGGGG
 TTGCAAAAAA TTTTGAACGT GCAAAAAAAG 6390
 CTCCCAATCA TCCAAAAAAT TATTATCATG GATTCTAAAA CGGATTACCA GGGATTTCAG
 TCGATGTACA CGTTCGTCAC ATCTCATCTA 6480
 CCTCCCGGTT TTAATGAATA CGATTTTGTG CCAGAGTCCT TCGATAGGGA CAAGACAATT
 GCACTGATCA TGAACCTCTC TGGATCTACT 6570
 GGTCTGCCTA AAGGTGTCGC TCTGCCTCAT AGAACTGCCT GCGTGAGATT CTCGCATGCC
 AGAGATCCTA TTTTGGCAA TCAAATCATT 6660

CCGGATACTG	CGATTTTAAG	TGTTGTTCCA	TTCCATCACG	GTTTTGGAAT	GTTTACTACA
CTCGGATATT	TGATATGTGG	ATTTTCGAGTC	6750		
GTCTTAATGT	ATAGATTTGA	AGAAGAGCTG	TTTTTACGAT	CCCTTCAGGA	TTACAAAATT
CAAAGTGCCT	TGCTAGTACC	AACCCTATTT	6840		
TCATTCTTCG	CCAAAAGCAC	TCTGATTGAC	AAATACGATT	TATCTAATTT	ACACGAAATT
GCTTCTGGGG	GCGCACCTCT	TTCGAAAGAA	6930		
GTCTGGGGAAG	CGGTTGCAAA	ACGCTTCCAT	CTTCCAGGGA	TACGACAAGG	ATATGGGCTC
ACTGAGACTA	CATCAGCTAT	TCTGATTACA	7020		
CCCCGAGGGGG	ATGATAAACC	GGGCGCGGTC	GGTAAAGTTG	TTCCATTTTT	TGAAGCGAAG
GTTGTGGATC	TGGATACCGG	GAAAACGCTG	7110		
GGCGTTAATC	AGAGAGGCGA	ATTATGTGTC	AGAGGACCTA	TGATTATGTC	CGGTTATGTA
AACAATCCGG	AAGCGACCAA	CGCCTTGATT	7200		
GACAAGGATG	GATGGCTACA	TTCTGGAGAC	ATAGCTTACT	GGGACGAAGA	CGAACACTTC
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AACATCTTCG	ACGCGGGCGT	GGCAGGTCTT	7380		
CCCACGATG	ACGCCGGTGA	ACTTCCCGCC	GCCGTTGTTG	TTTTGGAGCA	CGGAAAGACG
ATGACGGAAA	AAGAGATCGT	GGATTACGTC	7470		
GCCAGTCAAG	TAACAACCGC	GAAAAAGTTG	CGCGGAGGAG	TTGTGTTTGT	GGACGAAGTA
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AGAAAAATCA	GAGAGATCCT	CATAAAGGCC	AAGAAGGGCG	GAAAGTCCAA	ATTGTAAAAT
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AGCTATTGTA	ATACTCTAGA	GGATCTGGTT	ACCACTAAAC	CAGCCTCAAG	AACACCCGAA
TGGAGTCTCT	AAGCTACATA	ATACCAACTT	7740		
ACACTTTACA	AAATGTTGTC	CCCCAAAATG	TAGCCATTCG	TATCTGCTCC	TAATAAAAAG
AAAGTTTCTT	CACATTCTAA	AAAAAAAAAA	7830		
AAAAAAAAAA	ACCCCCCCCC	CCCCCCCCCC	CCCCCCCCCC	CTGCAGGTCG	ACTCTAGAGG
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CCTCGCTCAC	TGACTCGCTG	CGCTCGGTCT	TTCGGCTGCG	GCGAGCGGTA	TCAGCTCACT
CAAAGGCGGT	AATACGGTTA	TCCACAGAAT	8190		
CAGGGGATAA	CGCAGGAAAG	AACATGTGAG	CAAAAGGCCA	GCAAAAGGCC	AGGAACCGTA
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ATTCAACAAA	GCCGCCGTCC	CGTCAAGTCA	9360		
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GCATCAAATG	AAACTGCAAT	TTATTCATAT	9450		
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CGAGGCAGTT	CCATAGGATG	GCAAGATCCT	9540		
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CATGTTTCAG	AAACAACCTCT	GGCGCATCGG	10080		
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 TGTCTGTAAG CGGATGCCGG GAGCAGACAA 10620
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 TCAGAGCAGA TTGTACTGAG AGTGCACCAT 10710
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 CGCGTTACAT AACTTACGGT AAATGGCCCCG 180
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 GTAACGCCAA TAGGGACTTT CCATTGACGT 270
 CAATGGGTGG AGTATTTACG GTAAACTGCC CACTTGGCAG TACATCAAGT GTATCATATG
 CCAAGTACGC CCCCTATTGA CGTCAATGAC 360
 GGTAAATGGC CCGCCTGGCA TTATGCCCAG TACATGACCT TATGGGACTT TCCTACTTGG
 CAGTACATCT ACGTATTAGT CATCGCTATT 450
 ACCATGGTGA TGCGGTTTTG GCAGTACATC AATGGGCGTG GATAGCGGTT TGA CTCACGG
 GGATTTCCAA GTCTCCACCC CATTGACGTC 540
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 GCCCATTTGA CGCAAATGGG CGGTAGGCGT 630
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 CGCCATCCAC GCTGTTTTGA CCTCCATAGA 720
 AGACACCGGG ACCGATCCAG CCTCCGCGGC CGGGAACGGT GCATTGGAAC GCGGATTCCC
 CGTGCCAAGA GTGACGTAAG TACCGCCTAT 810
 AGACTCTATA GGCACACCCC TTTGGCTCTT ATGCATGCTA TACTGTTTTT GGCTTGGGGC
 CTATACACCC CCGCTTCCTT ATGCTATAGG 900
 TGATGGTATA GCTTAGCCTA TAGGTGTGGG TTATTGACCA TTATTGACCA CTCCAACGGT
 GGAGGGCAGT GTAGTCTGAG CAGTACTCGT 990
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 GGGTCTTTTC TGCAGTCACC GTCGTCGACA 1080
 CGTGTGATCA GATGATCCTC TAGACCAGGC GCCTGGATCC GCTAGCAGGC CTAAGCTTGA
 TAGCTTGGCA TTCCGGTACT GTTGGTAAAG 1170

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ATAATGAACG	TGAATTGCTC	AACAGTATGG	1530		
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CATCTCATCT	ACCTCCCGGT	TTTAATGAAT	1710		
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GGAAAACGCT	GGGCGTTAAT	CAAAGAGGCG	2340		
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ACGCCTTGAT	TGACAAGGAT	GGATGGCTAC	2430		
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AGTCTCTGAT	TAAGTACAAA	GGCTATCAGG	2520		
TGGCTCCCCG	TGAATTGGAA	TCCATCTTGC	TCCAACACCC	CAACATCTTC	GACGCAGGTG
TCGCAGGTCT	TCCCGACGAT	GACGCCGGTG	2610		
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TGGATTACGT	CGCCAGTCAA	GTAACAACCG	2700		
CGAAAAAGTT	GCGCGGAGGA	GTTGTGTTTG	TGGACGAAGT	ACCGAAAGGT	CTTACCGGAA
AACTCGACGC	AAGAAAAATC	AGAGAGATCC	2790		
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CCGGGGGATC	CAGATCTTTT	TCCCTCGCCA	2880		
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CATTCTTCCG	CTTCCTCGCT	CACTGACTCG	CTGCGCTCGG	TCGTTCCGGCT	GCGGCGAGCG
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AGGTGGCGAA	ACCCGACAGG	ACTATAAAGA	3330		
TACCAGGCGT	TTCCCCCTGG	AAGCTCCCTC	GTGCGCTCTC	CTGTTCCGAC	CCTGCCGCTT
ACCGGATACC	TGTCCGCCTT	TCTCCCTTCG	3420		
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CGCTCCAAGC	TGGGCTGTGT	GCACGAACCC	3510		
CCCGTTTACG	CCGACCGCTG	CGCCTTATCC	GGTAACTATC	GTCTTGAGTC	CAACCCGGTA
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ACTGGTAACA	GGATTAGCAG	AGCGAGGTAT	GTAGGCGGTG	CTACAGAGTT	CTTGAAGTGG
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AATCGCCCCA	TCATCCAGCC	AGAAAGTGAG	GGAGCCACGG	TTGATGAGAG	CTTTGTTGTA
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AAAAGTTCGA	TTTATTCAAC	AAAGCCGCCG	4320		
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TGAGCGAGAC	GAAATACGCG	ATCGCTGTTA	4770		

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CGCACATTTT	CCCGAAAAGT	GCCACCTGAC	GTCTAAGAAA	CCATTATTAT	CATGACATTA
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CGGGAGCAGA	CAAGCCCCTC	AGGGCGCGTC	AGCGGGTGTT	GGCGGGTGTC	GGGGCTGGCT
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 SIZE 5313
 DNA: LO59

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ATTCGCCATT	CAGGCTGCGC	AACTGTTGGG	270		
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GCTCCCTCGT	GCGCTCTCCT	GTTCCGACCC	TGCCGCTTAC	CGGATACCTG	TCCGCCTTTC
TCCCTTCGGG	AAGCGTGGCG	CTTTCTCATA	3690		
GCTCACGCTG	TAGGTATCTC	AGTTCGGTGT	AGGTCGTTTC	CTCCAAGCTG	GGCTGTGTGC
ACGAACCCCC	CGTTCAGCCC	GACCGCTGCG	3780		
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GAAGGACAGT	ATTTGGTATC	TGCGCTCTGC	3960		
TGAAGCCAGT	TACCTTCGGA	AAAAGAGTTG	GTAGCTCTTG	ATCCGGCAAA	CAAACCACCG
CTGGTAGCGG	TGGTTTTTTT	GTTTGCAAGC	4050		
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CTGACGCTCA	GTGGAACGAA	AACTCACGTT	4140		
AAGGGATTTT	GGTCATGAGA	TTATCAAAAA	GGATCTTCAC	CTAGATCCTT	TTAAATTAAA
AATGAAGTTT	TAAATCAATC	TAAAGTATAT	4230		
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TCTGTCTATT	TCGTTTCATC	ATAGTTGCCT	4320		

GACTCCCCGT	CGTG TAGATA	ACTACGATAC	GGGAGGGCTT	ACCATCTGGC	CCCAGTGCTG
CAATGATACC	GCGAGACCCA	CGCTCACC GG	4410		
CTCCAGATTT	ATCAGCAATA	AACCAGCCAG	CCGGAAGGGC	CGAGCGCAGA	AGTGGTCCTG
CAACTTTATC	CGCCTCCATC	CAGTCTATTA	4500		
ATTGTTGCCG	GGAAGCTAGA	GTAAGTAGTT	CGCCAGTTAA	TAGTTTGCGC	AACGTTGTTG
CCATTGCTAC	AGGCATCGTG	GTGTCACGCT	4590		
CGTCGTTTGG	TATGGCTTCA	TTCAGCTCCG	GTTCCCAACG	ATCAAGGCGA	GTTACATGAT
CCCCCATGTT	GTGCAAAAAA	GCGGTTAGCT	4680		
CCTTCGGTCC	TCCGATCGTT	GTCAGAAAGTA	AGTTGGCCGC	AGTGTTATCA	CTCATGGTTA
TGGCAGCACT	GCATAATTCT	CTTACTGTCA	4770		
TGCCATCCGT	AAGATGCTTT	TCTGTGACTG	GTGAGTACTC	AACCAAGTCA	TTCTGAGAAT
AGTGTATGCG	GCGACCGAGT	TGCTCTTGCC	4860		
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GAAAACGTTC	TCGGGGCGA	AAACTCTCAA	4950		
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CAGCATCTTT	TACTTTCACC	AGCGTTTCTG	5040		
GGTGAGCAAA	AACAGGAAGG	CAAAATGCCG	CAAAAAAGGG	AATAAGGGCG	ACACGGAAAT
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CATTTCCCCG	AAAAGTGCCA	CCTGACGTCT	AAGAAACCAT	TATTATCATG	ACATTAACCT
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GTC			5313		

SEQ ID NO:49
 SIZE 7940
 DNA: R023

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CGCGTTACAT	AACTTACGGT	AAATGGCCCCG	180		
CCTGGCTGAC	CGCCCAACGA	CCCCCGCCCA	TTGACGTCAA	TAATGACGTA	TGTTCCCAT A
GTAACGCCAA	TAGGGACTTT	CCATTGACGT	270		
CAATGGGTGG	AGTATTTACG	GTAAACTGCC	CACTTGGCAG	TACATCAAGT	GTATCATATG
CCAAGTACGC	CCCCTATTGA	CGTCAATGAC	360		
GGTAAATGGC	CCGCCTGGCA	TTATGCCCAG	TACATGACCT	TATGGGACTT	TCCTACTTGG
CAGTACATCT	ACGTATTAGT	CATCGCTATT	450		
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GGATTTCCAA	GTCTCCACCC	CATTGACGTC	540		
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GCCCCATTGA	CGCAAATGGG	CGGTAGGCGT	630		

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CGCCATCCAC	GCTGTTTTGA	CCTCCATAGA	720		
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CGTGCCAAGA	GTGACGTAAG	TACCGCCTAT	810		
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CTATACACCC	CCGCTTCCTT	ATGCTATAGG	900		
TGATGGTATA	GCTTAGCCTA	TAGGTGTGGG	TTATTGACCA	TTATTGACCA	CTCCAACGGT
GGAGGGCAGT	GTAGTCTGAG	CAGTACTCGT	990		
TGCTGCCGCG	CGCGCCACCA	GACATAATAG	CTGACAGACT	AACAGACTGT	TCCTTTCCAT
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GTATCGATAA	GCTTGATCCA	CCGCGGTGGC	GGCCTGGCAC	GACAGGTTTC	CCGACTGGAA
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CGGTGTGCGT	TTGTCTATAT	GTTATTTTCC	1530		
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GATACACCTG	CAAAGGCGGC	ACAACCCCAG	1800		
TGCCACGTTG	TGAGTTGGAT	AGTTGTGGAA	AGAGTCAAAT	GGCTCTCCTC	AAGCGTATTC
AACAAGGGGC	TGAAGGATGC	CCAGAAGGTA	1890		
CCCCATTGTA	TGGGATCTGA	TCTGGGGCCT	CGGTGCACAT	GCTTTACATG	TGTTTAGTCG
AGGTTAAAAA	AACGTCTAGG	CCCCCGAAC	1980		
CACGGGGACG	TGGTTTTCTT	TTGAAAAACA	CGATGATAAT	ATGGCCACAA	CCATGGACAC
GATTAACATC	GCTAAGAACG	ACTTCTCTGA	2070		
CATCGAACTG	GCTGCTATCC	CGTTCAACAC	TCTGGCTGAC	CATTACGGTG	AGCGTTTAGC
TCGCGAACAG	TTGGCCCTTG	AGCATGAGTC	2160		
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GGTTGCGGAT	AACGCTGCCG	CCAAGCCTCT	2250		
CATCACTACC	CTACTCCCTA	AGATGATTGC	ACGCATCAAC	GACTGGTTTG	AGGAAGTGAA
AGCTAAGCGC	GGCAAGCGCC	CGACAGCCTT	2340		
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TATCCGTGAC	CTTGAAGCTA	AGCACTTCAA	2520		
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GCAAGTTGTC	GAGGCTGACA	TGCTCTCTAA	2610		
GGGTCTACTC	GGTGGCGAGG	CGTGGTCTTC	GTGGCATAAG	GAAGACTCTA	TTCATGTAGG
AGTACGCTGC	ATCGAGATGC	TCATTGAGTC	2700		
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CGGTCTGTGT	TACGCTGTGT	CAATGTTCAA	3330		
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TAAGGAAGGT	TACTACTGGC	TGAAAATCCA	3420		
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SEQ ID NO:50
SIZE 7802
DNA: R065: CMV-HIS-VP22-T7RNAP fusion protein

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GCGACTCGAG	GGCGTTCTGC	GGCGTCGCGC	1980		
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GCCACAACCA	TGGACACGAT	TAACATCGCT	2070		
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AAGCGCCCGA	CAGCCTTCCA	GTTCTTGCAA	GAAATCAAGC	CGGAAGCCGT	AGCGTACATC
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TACAACATGG	ACTGGCGCGG	TCGTGTTTAC	3330		

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CGCATCAAGT	TCATTGAGGA	AAACCACGAG	3510		
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AACCTGATGT	TCCTCGGTCA	GTTCCGCTTA	4320		
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GGTAACTTGA	ACCTCCGTGA	CATCTTAGAG	4680		
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 7802

SEQ ID NO:51

SIZE 7002

DNA: RO71 CMV-IL2-signal sequence + first 11 amino acids of IL-2 fused to T7 RNAP

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 GCCCATTTGA CGCAAATGGG CGGTAGGCGT 630
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